



- 1 -

# SEQUENCE LISTING

<110> Hunter, Tony  
Kun Ping, Lu  
Hanes, Steven D.

<120> NIMA INTERACTING PROTEINS

<130> 66671-085

<140> US 10/716,379

<141> 2003-11-17

<150> US 10/616,410

<151> 2003-07-08

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<212> DNA

<213> Homo sapiens

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ggc tgg gag aag cgc atg agc cgc agc tca ggc cga gtg tac tac ttc	99
Gly Trp Glu Lys Arg Met Ser Arg Ser Ser Gly Arg Val Tyr Tyr Phe	
10 15 20 25	
aac cac atc act aac gcc agc cag tgg gag cgg ccc agc ggc aac agc	147
Asn His Ile Thr Asn Ala Ser Gln Trp Glu Arg Pro Ser Gly Asn Ser	
30 35 40	
agc agt ggt ggc aaa aac ggg cag ggg gag cct gcc agg gtc cgc tgc	195
Ser Ser Gly Gly Lys Asn Gly Gln Gly Glu Pro Ala Arg Val Arg Cys	
45 50 55	
tcg cac ctg ctg gtg aag cac agc cag tca cgg cgg ccc tcg tcc tgg	243
Ser His Leu Leu Val Lys His Ser Gln Ser Arg Arg Pro Ser Ser Trp	
60 65 70	
cgg cag gag aag atc acc cgg acc aag gag gag gcc ctg gag ctg atc	291

Arg	Gln	Glu	Lys	Ile	Thr	Arg	Thr	Lys	Glu	Glu	Ala	Leu	Glu	Leu	Ile		
75						80					85						
aac	ggc	tac	atc	cag	aag	atc	aag	tcg	gga	gag	gag	gac	ttt	gag	tct		339
Asn	Gly	Tyr	Ile	Gln	Lys	Ile	Lys	Ser	Gly	Glu	Glu	Asp	Phe	Glu	Ser		
90					95					100					105		
ctg	gcc	tca	cag	ttc	agc	gac	tgc	agc	tca	gcc	aag	gcc	agg	gga	gac		387
Leu	Ala	Ser	Gln	Phe	Ser	Asp	Cys	Ser	Ser	Ala	Lys	Ala	Arg	Gly	Asp		
				110					115					120			
ctg	ggt	gcc	ttc	agc	aga	ggt	cag	atg	cag	aag	cca	ttt	gaa	gac	gcc		435
Leu	Gly	Ala	Phe	Ser	Arg	Gly	Gln	Met	Gln	Lys	Pro	Phe	Glu	Asp	Ala		
			125					130					135				
tcg	ttt	gcg	ctg	cgg	acg	ggg	gag	atg	agc	ggg	ccc	gtg	ttc	acg	gat		483
Ser	Phe	Ala	Leu	Arg	Thr	Gly	Glu	Met	Ser	Gly	Pro	Val	Phe	Thr	Asp		
	140					145					150						
tcc	ggc	atc	cac	atc	atc	ctc	cgc	act	gag	tgagggtggg	gagcccaggc						533
Ser	Gly	Ile	His	Ile	Ile	Leu	Arg	Thr	Glu								
155						160											
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tggccgaacc	ccccactccc	tgccaccgtc	acacagtatt	tattgttccc	acaatggctg												653
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gggctgcgac	cgccagattc	tcccttaagg	aattgacttc	agcaggggtg	ggaggctccc												773
agaccaggg	cagtgtggtg	ggaggggtgt	tccaaagaga	aggcctgggtc	agcagagccg												833
ccccgtgtcc	ccccaggtgc	tggaggcaga	ctcgagggcc	gaattgtttc	tagttaggcc												893
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<210> 2  
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<400> 2

Met	Ala	Asp	Glu	Glu	Lys	Leu	Pro	Pro	Gly	Trp	Glu	Lys	Arg	Met	Ser		
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Arg	Ser	Ser	Gly	Arg	Val	Tyr	Tyr	Phe	Asn	His	Ile	Thr	Asn	Ala	Ser		
			20					25					30				
Gln	Trp	Glu	Arg	Pro	Ser	Gly	Asn	Ser	Ser	Ser	Gly	Gly	Lys	Asn	Gly		
		35				40						45					
Gln	Gly	Glu	Pro	Ala	Arg	Val	Arg	Cys	Ser	His	Leu	Leu	Val	Lys	His		
	50					55					60						
Ser	Gln	Ser	Arg	Arg	Pro	Ser	Ser	Trp	Arg	Gln	Glu	Lys	Ile	Thr	Arg		
65					70				75						80		
Thr	Lys	Glu	Glu	Ala	Leu	Glu	Leu	Ile	Asn	Gly	Tyr	Ile	Gln	Lys	Ile		
				85					90					95			
Lys	Ser	Gly	Glu	Glu	Asp	Phe	Glu	Ser	Leu	Ala	Ser	Gln	Phe	Ser	Asp		
			100					105					110				

Cys	Ser	Ser	Ala	Lys	Ala	Arg	Gly	Asp	Leu	Gly	Ala	Phe	Ser	Arg	Gly
		115					120				125				
Gln	Met	Gln	Lys	Pro	Phe	Glu	Asp	Ala	Ser	Phe	Ala	Leu	Arg	Thr	Gly
	130					135					140				
Glu	Met	Ser	Gly	Pro	Val	Phe	Thr	Asp	Ser	Gly	Ile	His	Ile	Ile	Leu
145					150					155					160
Arg	Thr	Glu													

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<400> 4  
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<210> 5  
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 gcgcgtacca agwccacygt ayattattcc 30

<210> 6  
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 <213> Artificial Sequence

<220>  
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<400> 6  
 Met Tyr Asp Val Pro Asp Tyr Ala Ser Arg Pro Gln Asn  
 1 5 10

<210> 7  
 <211> 32  
 <212> PRT  
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<220>  
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<400> 7

Met	Ala	Ser	Tyr	Pro	Tyr	Asp	Val	Pro	Asp	Tyr	Ala	Ser	Pro	Glu	Phe
1				5				10					15		
Leu	Val	Asp	Pro	Pro	Gly	Ser	Lys	Asn	Ser	Ile	Ala	Arg	Gly	Lys	Met
		20					25						30		

<210> 8

<211> 39

<212> PRT

<213> Homo sapiens

<400> 8

Glu	Lys	Leu	Pro	Pro	Gly	Trp	Glu	Lys	Arg	Met	Ser	Arg	Ser	Ser	Gly
1				5				10					15		
Arg	Val	Tyr	Tyr	Phe	Asn	His	Ile	Thr	Asn	Ala	Ser	Gln	Trp	Glu	Arg
		20					25					30			
Pro	Ser	Gly	Asn	Ser	Ser	Ser									
		35													

<210> 9

<211> 39

<212> PRT

<213> Yeast ESS1

<400> 9

Thr	Gly	Leu	Pro	Thr	Pro	Trp	Thr	Val	Arg	Tyr	Ser	Lys	Ser	Lys	Lys
1				5				10					15		
Arg	Glu	Tyr	Phe	Phe	Asn	Pro	Glu	Thr	Lys	His	Ser	Gln	Trp	Glu	Glu
		20					25					30			
Pro	Glu	Gly	Thr	Asn	Lys	Asp									
		35													

<210> 10

<211> 38

<212> PRT

<213> Homo sapiens

<400> 10

Val	Pro	Leu	Pro	Ala	Gly	Trp	Glu	Met	Ala	Lys	Thr	Ser	Ser	Gly	Gln
1				5				10					15		
Arg	Tyr	Phe	Leu	Asn	His	Ile	Asp	Gln	Thr	Thr	Thr	Trp	Gln	Asp	Pro
		20					25					30			
Arg	Lys	Ala	Met	Leu	Ser										
		35													

<210> 11

<211> 38

<212> PRT

<213> Mus musculus

<400> 11

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Ser Pro Leu Pro Pro Gly Trp Glu Glu Arg Gln Asp Val Leu Gly Arg
 1              5              10              15
Thr Tyr Tyr Val Asn His Glu Ser Arg Arg Thr Gln Trp Lys Arg Pro
              20              25              30
Ser Pro Asp Asp Asp Leu
              35
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<210> 12

<211> 38

<212> PRT

<213> Yeast RSPS

<400> 12

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Gly Arg Leu Pro Pro Gly Trp Glu Arg Arg Thr Asp Asn Phe Gly Arg
 1              5              10              15
Thr Tyr Tyr Val Asp His Asn Thr Arg Thr Thr Thr Trp Lys Arg Pro
              20              25              30
Thr Leu Asp Gln Thr Glu
              35
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<210> 13

<211> 38

<212> PRT

<213> Homo sapiens

<400> 13

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Thr Ser Val Gln Gly Pro Trp Glu Arg Ala Ile Ser Pro Asn Lys Val
 1              5              10              15
Pro Tyr Tyr Ile Asn His Glu Thr Gln Thr Thr Cys Trp Asp His Pro
              20              25              30
Lys Met Thr Glu Leu Tyr
              35
```

<210> 14

<211> 37

<212> PRT

<213> Rattus rattus

<400> 14

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Ser Asp Leu Pro Ala Gly Trp Met Arg Val Gln Asp Thr Ser Gly Thr
 1              5              10              15
Tyr Tyr Trp His Ile Pro Thr Gly Thr Thr Gln Trp Glu Pro Pro Gly
              20              25              30
Arg Ala Ser Pro Ser
              35
```

<210> 15  
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<220>  
<223> consensus sequence

<400> 15  
Leu Pro Gly Trp Glu Gly Tyr Tyr Asn His Thr Thr Trp Pro  
1 5 10

<210> 16  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 16  
His Leu Leu Val Lys His Ser Gln Ser Arg Arg Pro Ser Ser Trp Arg  
1 5 10 15  
Gln Glu Lys Ile Thr Arg Thr Lys Glu Glu Ala Leu Glu Leu Ile Asn  
20 25 30  
Gly Tyr Ile Gln Lys Ile Lys Ser Gly Glu Glu Asp Phe Glu Ser Leu  
35 40 45  
Ala Ser Gln Phe Ser Asp Cys Ser Ser Ala Lys Ala Arg Gly Asp Leu  
50 55 60  
Gly Ala Phe Ser Arg Gly Gln Met Gln Lys Pro Phe Glu Asp Ala Ser  
65 70 75 80  
Phe Ala Leu Arg Thr Gly Glu Met Ser Gly Pro Val Phe Thr Asp Ser  
85 90 95  
Gly Ile His Ile Ile Leu Arg Thr Glu  
100 105

<210> 17  
<211> 107  
<212> PRT  
<213> Yeast ESS1

<400> 17  
His Ile Leu Ile Lys His Lys Asp Ser Arg Arg Pro Ala Ser His Arg  
1 5 10 15  
Ser Glu Asn Ile Thr Ile Ser Lys Gln Asp Ala Thr Asp Glu Leu Lys  
20 25 30  
Thr Leu Ile Thr Arg Leu Asp Asp Asp Ser Lys Thr Asn Ser Phe Glu  
35 40 45  
Ala Leu Ala Lys Glu Arg Ser Asp Cys Ser Ser Tyr Lys Arg Gly Gly  
50 55 60  
Asp Leu Gly Trp Phe Gly Arg Gly Glu Met Gln Pro Ser Phe Glu Asp  
65 70 75 80  
Ala Ala Phe Gln Leu Lys Val Gly Glu Val Ser Asp Ile Val Glu Ser  
85 90 95

Gly Ser Gly Val His Val Ile Lys Arg Val Gly  
100 105

<210> 18  
<211> 83  
<212> PRT  
<213> E. coli

<400> 18  
His Ile Leu Val Lys Glu Glu Lys Leu Ala Leu Asp Leu Leu Glu Gln  
1 5 10 15  
Ile Lys Asn Gly Ala Asp Phe Gly Lys Leu Ala Lys Lys His Ser Ile  
20 25 30  
Cys Pro Ser Gly Lys Arg Gly Gly Asp Leu Gly Glu Phe Arg Gln Gly  
35 40 45  
Gln Met Val Pro Ala Phe Asp Lys Val Val Phe Ser Cys Pro Val Leu  
50 55 60  
Glu Pro Thr Gly Pro Leu His Thr Gln Phe Gly Tyr His Ile Ile Lys  
65 70 75 80  
Val Leu Tyr

<210> 19  
<211> 84  
<212> PRT  
<213> B.subtilis

<400> 19  
His Ile Leu Val Ala Asp Lys Lys Thr Ala Glu Glu Val Glu Lys Lys  
1 5 10 15  
Leu Lys Lys Gly Glu Lys Phe Glu Asp Leu Ala Lys Glu Tyr Ser Thr  
20 25 30  
Asp Ser Ser Ala Ser Lys Gly Gly Asp Leu Gly Trp Phe Ala Lys Glu  
35 40 45  
Gly Gln Met Asp Glu Thr Phe Ser Lys Ala Ala Phe Lys Leu Lys Thr  
50 55 60  
Gly Glu Val Ser Asp Pro Val Lys Thr Gln Tyr Gly Tyr His Ile Ile  
65 70 75 80  
Lys Lys Thr Glu

<210> 20  
<211> 91  
<212> PRT  
<213> C. jejuni

<400> 20  
His Ile Leu Val Ala Thr Glu Lys Glu Ala Lys Asp Ile Ile Asn Glu  
1 5 10 15  
Leu Lys Gly Leu Lys Gly Lys Glu Leu Asp Ala Lys Phe Ser Glu Leu  
20 25 30

Ala Lys Glu Lys Ser Ile Asp Pro Gly Ser Lys Asn Gln Gly Gly Glu  
 35 40 45  
 Leu Gly Trp Phe Asp Gln Ser Thr Met Val Lys Pro Phe Thr Asp Ala  
 50 55 60  
 Ala Phe Ala Leu Lys Asn Gly Thr Ile Thr Thr Thr Pro Val Lys Thr  
 65 70 75 80  
 Asn Phe Gly Tyr His Val Ile Leu Lys Glu Asn  
 85 90

<210> 21  
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 <212> PRT  
 <213> A. thaliana

<400> 21  
 Ile Val Ser Lys Ala Asn Phe Glu Glu Val Ala Thr Arg Val Ser Asp  
 1 5 10 15  
 Cys Ser Ser Ala Lys Arg Gly Gly Asp Leu Gly Ser Phe Gly Arg Gly  
 20 25 30  
 Gln Met Gln Lys Pro Phe Glu Glu Ala Thr Tyr Ala Leu Lys Val Gly  
 35 40 45  
 Asp Ile Ser Asp Ile Val Asp Thr Asp Ser Gly Val His Ile Ile Lys  
 50 55 60  
 Arg Thr Glu  
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<210> 22  
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<220>  
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<400> 22  
 His Ile Leu Val Glu Lys Phe Glu Leu Ala Lys Ser Cys Ser Ser Lys  
 1 5 10 15  
 Gly Gly Asp Leu Gly Phe Arg Gly Gln Met Phe Asp Ala Ala Phe Leu  
 20 25 30  
 Lys Gly Glu Ser Pro Val Thr Gly Tyr His Ile Ile Lys  
 35 40 45